

Date - 04-05-2021

class - 6<sup>th</sup>

Monday Test

[30 Marks]

one-mark-Questions

Section - A

Subject - Maths

[1x8=8]

Q1 Sum of 3<sup>rd</sup> power of 3 & 7<sup>th</sup> power of 2, is

- (A) 127
- (B) 132
- (C) 164
- (D) 155.

Q2 Sum of first six vishanka numbers (starts with 1, 2) is

- (A) 16
- (B) 32
- (C) 64
- (D) 128.

Q3 If we add up pairs of consecutive triangular numbers like 1+3, 6+10, 15+21, and so on, then the sum of fifth pair of numbers is

- (A) 10<sup>th</sup> square number
- (B) 10<sup>th</sup> vishanka number
- (C) 10<sup>th</sup> cubed number
- (D) 10<sup>th</sup> odd number.

Q4 The sequence 1, 7, 19, 37, ----- is called as

- (A) squares
- (B) cubes
- (C) Triangular numbers
- (D) Hexagonal numbers.

Q5 The missing term in the sequence 1, 4, -----, 16, 25, 36

- (A) 9
- (B) 10
- (C) 15
- (D) 36.

Q6 8<sup>th</sup> vishanka number is 34

Q7 Number of dots in sixth triangular number is 21

Q8 A Regular polygon is a shape with all sides and angles equal.

[2x1=2]

Q9 Match column - I with column - II

Column - I

Column - II

- |                                                                 |          |
|-----------------------------------------------------------------|----------|
| (A) Sum of 13 <sup>th</sup> triangular number and odd number is | (1) 386  |
| (B) 10 <sup>th</sup> vishanka number is                         | (2) 91   |
| (C) Sum of squares of first five odd natural numbers is         | (3) 89   |
| (D) Difference of cubes of 7 and 9 is                           | (4) 165. |

SECTION - B

Two marks Questions

Q10 What is the importance of mathematics in our daily life?

Q11 Define powers of 2, Powers of 3 with Rule for forming the numbers.

Q12 What sequence do you get when you start to add the ALL 1's sequence up? <sup>Counting no.</sup> What sequence do you get when you add the ALL 1's sequence up and down? <sup>odd numbers.</sup>

Q13 What sequence do you get when you start to add the counting numbers up? Can you give a smaller pictorial Explanation? <sup>↳ Triangular numbers.</sup>

Q14 What is a regular polygon? Draw a neat diagram of first Five Regular polygons. [3x2=6]

Three Marks Question Section - C

Q15 You have noticed that 36 is both a triangular number and a square number. That is, 36 dots can be arranged perfectly both in a Triangle and in a square. Make pictures in your notebook illustrating this!

This show that the same number can be represented differently and play different roles, depending on the context. Try representing some other numbers pictorially in different ways!

Q16 What happens when you start to add up powers of 2 starting with 1, i.e. take 1, 1+2, 1+2+4, 1+2+4+8, ---? Now add 1 to each of these numbers - what numbers do you get? Why does this happen? 2, 4, 8, 16, 32 → Power of 2.

Four Marks Question Section - D [4x1=4]

Q17 What happens when you multiply the triangular numbers by 6 and add 1? What sequence do you get? Can you explain it with a picture? ↳ Hexagonal numbers.